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LIST OF ABBREVIATIONS

MUSIC	MUon Science Innovative Channel
MPPC	Multi Pixel Photon Counter
WLS	Wavelength Shifting
PMT	Photomultiplier Tube
PDE	Photon Detection Efficiency
PRISM	Phase Rotated Intense Slow Muon Source
FFAG	Fixed Field Alternating Gradient Ring
LIDAR	Light Detection and Ranging
OTDR	Optical Time Domain Reflectometry
DAQ	Data Acquisition System
PC	Personal Computer
ADC	Analog to Digital Converter

LIST OF SYMBOLS

Q	Magnitude of Charge
C	Capacitance
V	Operating Voltage
V_{bd}	Breakdown voltage
M_s	Center of Mass
m	Integer
N_m	Number of Photon at m
N_L	Number of Photon at left MPPC
N_R	Number of Photon at right MPPC
x	Instantaneous length
L	Fiber length
$\frac{dE}{dx}$	Rate of energy loss of particle with respect to distance
γ	Constant
β	Constant
ν	Muons velocity
c	Speed of light
Z	Atomic number
A	Atomic mass
I	Mean excitation energy
δ	Correction constant
M	Rest mass
T	Solid angle
n_1	Refractive Index 1

n_2	Refractive Index 2
C	Particle passage
N_{calc}	Number of calculated Photon
N_{scint}	Number of Photon first detected by scintillator
P_{fiber}	Probability of attenuation in fiber
P_{att}	Probability of attenuation in scintillator